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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/803,182	03/16/2004	Francis W. Hughto-Delzer	2003-801.nonprov	5107

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03/02/2006

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EXAMINER

RODRIGUEZ, RUTH C

ART UNIT

PAPER NUMBER

3677

DATE MAILED: 03/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/803,182	HUGHTO-DELZER ET AL.	
	Examiner	Art Unit	
	Ruth C. Rodriguez	3677	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 January 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/16/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The information disclosure statement (IDS) submitted on 16 March 2004 has been considered by the examiner for this Office Action.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the hook-and-swingbolt fastener system being used in an ocean-going vessel or an aircraft or a railroad engine and a railroad car must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for

consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (US 1,872,471).

A swingbolt hook (13) comprises a base and a swingbolt catch (Figs. 2 and 3). The base has rear and front surfaces and extending along a base axis between first and second ends (Figs. 2 and 3). The base being is mounting to a second object with the rear surface of the base in contacting engagement with the second object (Figs. 2 and 3). The swingbolt catch selective retains engagement with the hook catch of the swingbolt (Figs. 2 and 3). The swingbolt catch depends from the base and has base

and distal ends and first and second opposed surfaces (Figs. 2 and 3). Each of the first and second surfaces extends laterally between left and right sides of the swingbolt catch (Figs. 2 and 3). The first surface extends between the front surface of the base and the distal end of the swingbolt catch and is adjacent to, and joined through a first transition region with, the front surface of the base (Figs. 2 and 3). The second surface extends between the rear surface of the base and the distal end of the swingbolt catch and is joined, through a second transition region, with the rear surface of the base, the first and second surfaces being oriented to one another such that, as viewed into a first cross-sectional plane passing through the first and second surfaces and between the left and right sides of the swingbolt catch (Figs. 2 and 3). The first and second surfaces extend along, respectively, first and second catch-surface axes that converge away from the base such that the swingbolt catch increases in thickness between the first and second surfaces with increased proximity to the base (Figs. 2 and 3).

The first cross-sectional plane includes the base axis and the first catch-surface axis defines, with the base axis, a first angle that is one of (i) 90 degrees and (ii) acute and (b) the second catch-surface axis defines, with the base axis, a second angle that is more acute than the first angle (Figs. 2 and 3).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Shimizu (US Re. 33,879).

Lee disclose a swingbolt hook having all the features mentioned above for the rejection of claims 1 and 2. Lee fails to disclose that at least a portion of the hook includes a wear-resistant coating. However, Shimizu teaches a hook assembly (1). The hook assembly is covered by titanium nitride (TiN). The coating provides wear resistance. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a wear-resistance coating as taught in Shimizu in the swingbolt hook disclosed by Lee where at least a portion of the hook include a wear-resistance coating. Doing so, provides hardness and wear-resistance.

7. Claims 3, 4, 8-11,15-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Wright (US 3,212,746).

Lee discloses a swingbolt hook having all the limitations listed above for the rejection of claims 1 and 2. Lee discloses that the swingbolt hook has a first surface that is convex and a second surface that is concave. However, Wright teaches a swingbolt hook (26). The hook comprises a base (25) and a swingbolt catch (28). The base has rear and front surfaces and extending along a base axis between first and second ends (Fig. 5). The base being is mounting to a second object with the rear surface of the base in contacting engagement with the second object (Fig. 5). The swingbolt catch selective retains engagement with the hook catch (10) of the swingbolt

(4). The swingbolt catch depends from the base and has base and distal ends and first and second opposed surfaces (Fig. 5). Each of the first and second surfaces extends laterally between left and right sides of the swingbolt catch (Figs. 1 and 5). The first surface extends between the front surface of the base and the distal end of the swingbolt catch and is adjacent to, and joined through a first transition region with, the front surface of the base (Fig. 5). The second surface extends between the rear surface of the base and the distal end of the swingbolt catch and is joined, through a second transition region, with the rear surface of the base, the first and second surfaces being oriented to one another such that, as viewed into a first cross-sectional plane passing through the first and second surfaces and between the left and right sides of the swingbolt catch (Fig. 5). A second cross-sectional plane passing through the first and second surfaces and the left and right sides of the swingbolt catch, at least one of (i) the first surface of the swingbolt catch is convex and (ii) the second surface of the swingbolt catch is concave (Fig. 5). The swingbolt catch is provided with this shape to cooperate with the inside radius of the swingbolt (C. 2, L. 50-59). Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to have a swingbolt catch provided with a second cross-sectional plane passing through the first and second surfaces and the left and right sides of the swingbolt catch, at least one of (i) the first surface of the swingbolt catch is convex and (ii) the second surface of the swingbolt catch is concave as taught by Wright in the hook disclosed by Lee. Doing so, is provided to cooperate with the inside radius of the swingbolt catch when a circular swingbolt is used in combination with the hook.

Regarding claim 8, Lee discloses that the swing bolt comprises a U-shaped mounting fastener (10) and a hook catch fastener (8). Lee fails to disclose that the swingbolt comprises an elongated rod, a set of external threads, a hook catch and an internally threaded nut (8). However, Wright teaches a swingbolt comprising an elongated rod (4), a set of external threads and a hook catch (9). The elongated rod has a first end pivotably mountable to a first object (2) and a second end longitudinally opposite the first end (Fig. 1). A set of external threads extends along at least a portion of the rod (Figs. 1, 3 and 4). The hook catch is slidably retained by the rod and longitudinally translates along the rod and has an interior surface (Figs. 1, 3 and 4). The internally threaded nut is situated between the second end of the rod and the hook catch such that the nut can be selectively caused to exert a force against the hook catch in the direction of the first end of the rod (Fig. 1). This swingbolt allows sufficient movement to render the shock amount effective as a vibration isolator while maintaining the position of a container (C. 1, L. 8-15). Therefore, it would have been obvious to one having ordinary skill in the art at the time of Applicant's invention to provide the swingbolt taught by Wright in combination with the swingbolt hook disclosed by Lee. Doing so, will be highly effective in application subject to vibration since swingbolt allows sufficient movement to render the shock amount effective as a vibration isolator while maintaining the position of the object being held.

Wright teaches that the transport vehicle by which the framework is carried is one of an ocean-going vessel, an aircraft and one of a railroad engine and a railroad car (C. 1, L. 16-22).

8. Claims 5, 12-14 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Wright as applied to claims 4, 8, 9, 11 and 18 above, and further in view of Shimizu

The combination of Lee and Wright disclose a swingbolt hook having all the features mentioned above for the rejection of claims 4, 8, 9, 11 and 18. Lee fails to disclose that at least a portion of the hook includes a wear-resistant coating. However, Shimizu teaches a hook assembly (1). The hook assembly is covered by titanium nitride (TiN). The coating provides wear resistance. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include a wear-resistance coating as taught in Shimizu in the swingbolt hook disclosed by Lee where at least a portion of the hook include a wear-resistance coating. Doing so, provides hardness and wear-resistance.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Form PTO 892- Notice of Reference cited contains all the references that show the state of the art with respect to swingbolt hooks or protective coatings for hooks.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ruth C Rodriguez whose telephone number is (571) 272-7070. The examiner can normally be reached on M-F 07:15 - 15:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, J. J. Swann can be reached on (571) 272-7075.

Submissions of your responses by facsimile transmission are encouraged. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300. Recognizing the fact that reducing cycle time in the processing and examination of patent applications will effectively increase the patent's term, it is to your benefit to submit responses by facsimile transmission whenever permissible. Such submission will place the response directly in our examining group's hands and will eliminate Post Office processing and delivery time as well as PTO's mailroom processing and delivery time. For a complete list of correspondence **not** permitted by facsimile transmission, see MPEP § 502.01. In general, most responses and/or amendments not requiring a fee, as well as those requiring a fee but charging such fee to a deposit account, can be submitted by facsimile transmission. Responses requiring a fee that the applicant is paying by check **should not be** submitted by facsimile transmission separately from the check.

Responses submitted by facsimile transmission should include a Certificate of Transmission (MPEP § 512). The following is an example of the format the certification might take:

I hereby certify that this correspondence is being facsimile transmitted to
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(Typed or printed name of person signing this certificate)

(Signature)


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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-6640.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ruth C. Rodriguez
Patent Examiner
Art Unit 3677

rcr
February 21, 2006


ROBERT J. SANDY
PRIMARY EXAMINER